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United States Patent [19][11] **Patent Number:** **6,047,556****Lifson**[45] **Date of Patent:** **Apr. 11, 2000**[54] **PULSED FLOW FOR CAPACITY CONTROL**

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[21] **Appl. No.:** 08/986,447*Primary Examiner*—Henry Bennett[22] **Filed:** Dec. 8, 1997*Assistant Examiner*—Marc Norman[51] **Int. Cl.⁷** F25B 3/00[57] **ABSTRACT**[52] **U.S. Cl.** 62/196.2; 62/196.4; 62/217;
62/513; 251/129.05[58] **Field of Search** 62/196.2–196.4,
62/217, 513; 251/129.05

Step control in capacity modulation of a refrigeration or air conditioning circuit is achieved by rapidly cycling a solenoid valve in the suction line, economizer circuit or in a bypass with the percent of "open" time for the valve regulating the rate of flow therethrough. A common port in the compressor is used for economizer flow and for bypass.

[56] **References Cited**

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3 Claims, 1 Drawing Sheet